*FIG. 1*

400

☐ Vocabulary expander word training

Sounds-like spelling and pronunciation
are required for this word

Word to be registered (W)

| ViaVoice | | Add (L) |

401

Select all (E)    Cancel all (C)

Register (R)    Cancel    Help (H)

403    404    405

Point 1:
Automatic sounds-like
spelling generation

Setting

Sounds-like spelling (Y) (use hiragana, e.g.: こんにちは)

| ひおほいす | ▼ |

407

Sound (S) (use hiragana, e.g.: こんにちは)

| ひおほいす | ▼ |

409

○ Validate only new registration (O)
◉ Both new and old registration exist (A)

→ Add

Speech
recognition
dictionary

231

Ⓐ TO FIG. 2

Point 3:
Immediate use
available

Point 2:
Recording not required
(only button manipulation)

# FIG. 2

FROM FIG. 1

(A)

RECOGNITION PROCESS

AUDIO DATA REQUIRED ?
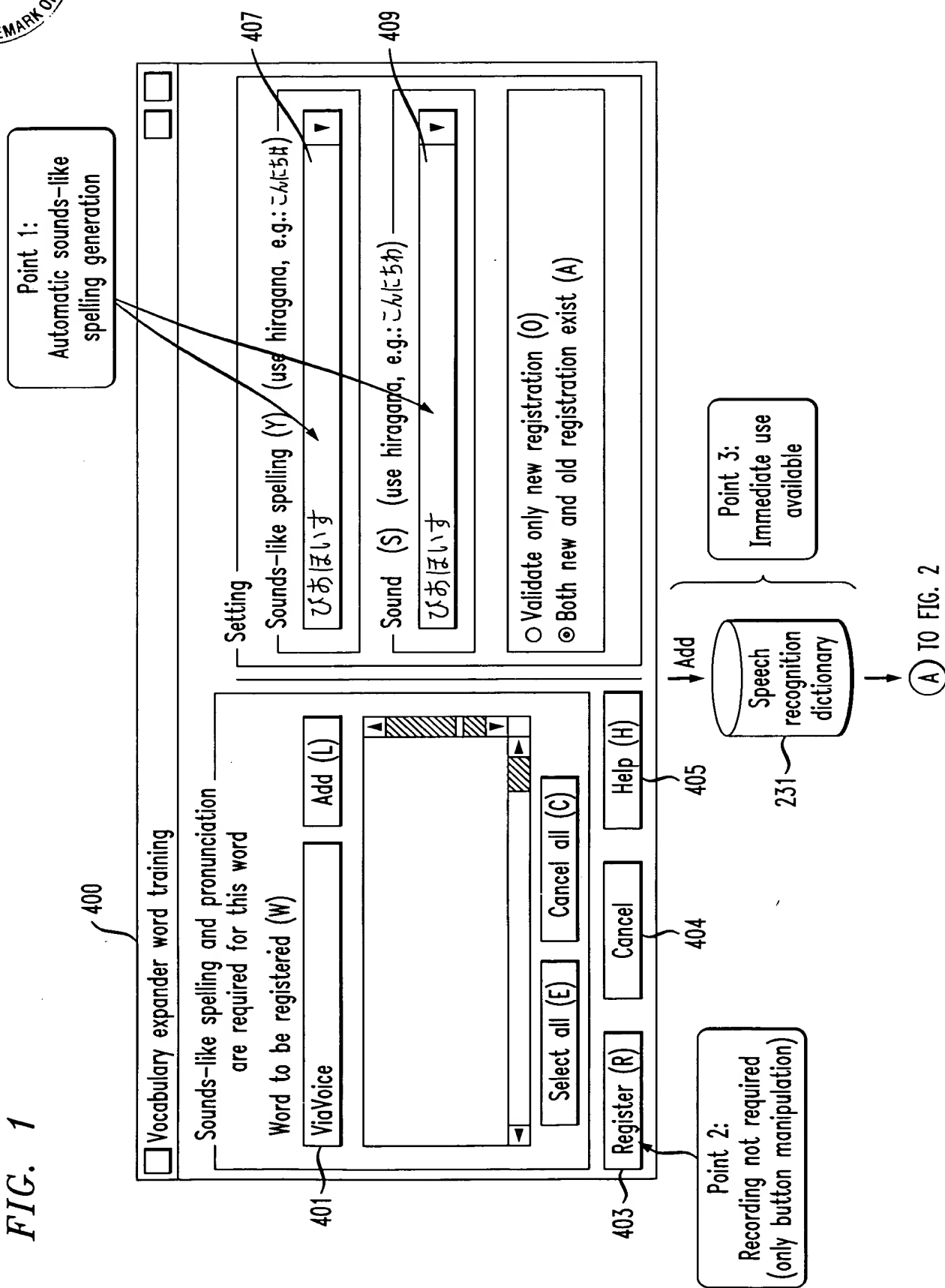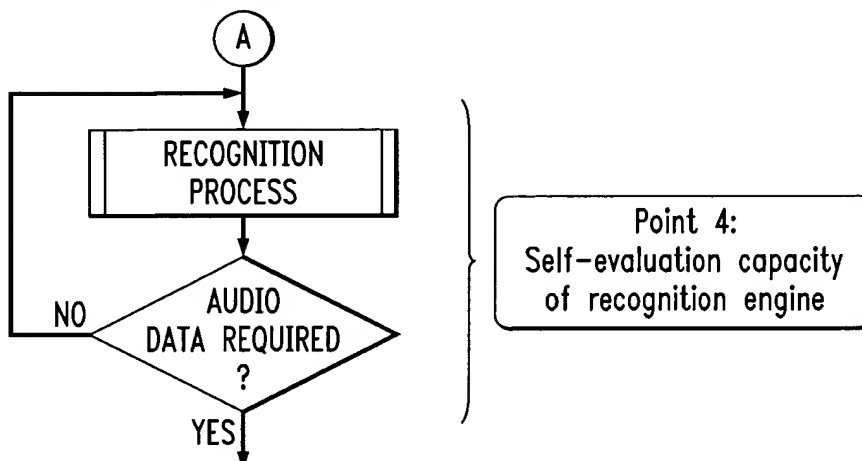
NO

YES

Point 4:
Self-evaluation capacity
of recognition engine

☐ Speech recognition wizard

Record pronunciation

Click Record pronunciation, and begin recording the word as you would naturally say it.

601

ViaVoice

Spelling ぴあほいす ▼

Pronunciation ぴあほいす ▼

603

Select another:

Add new word ▼

Start recording (R)

< Return (B) | Next (N) > | Cancel

600

Point 5:
Recording process performed
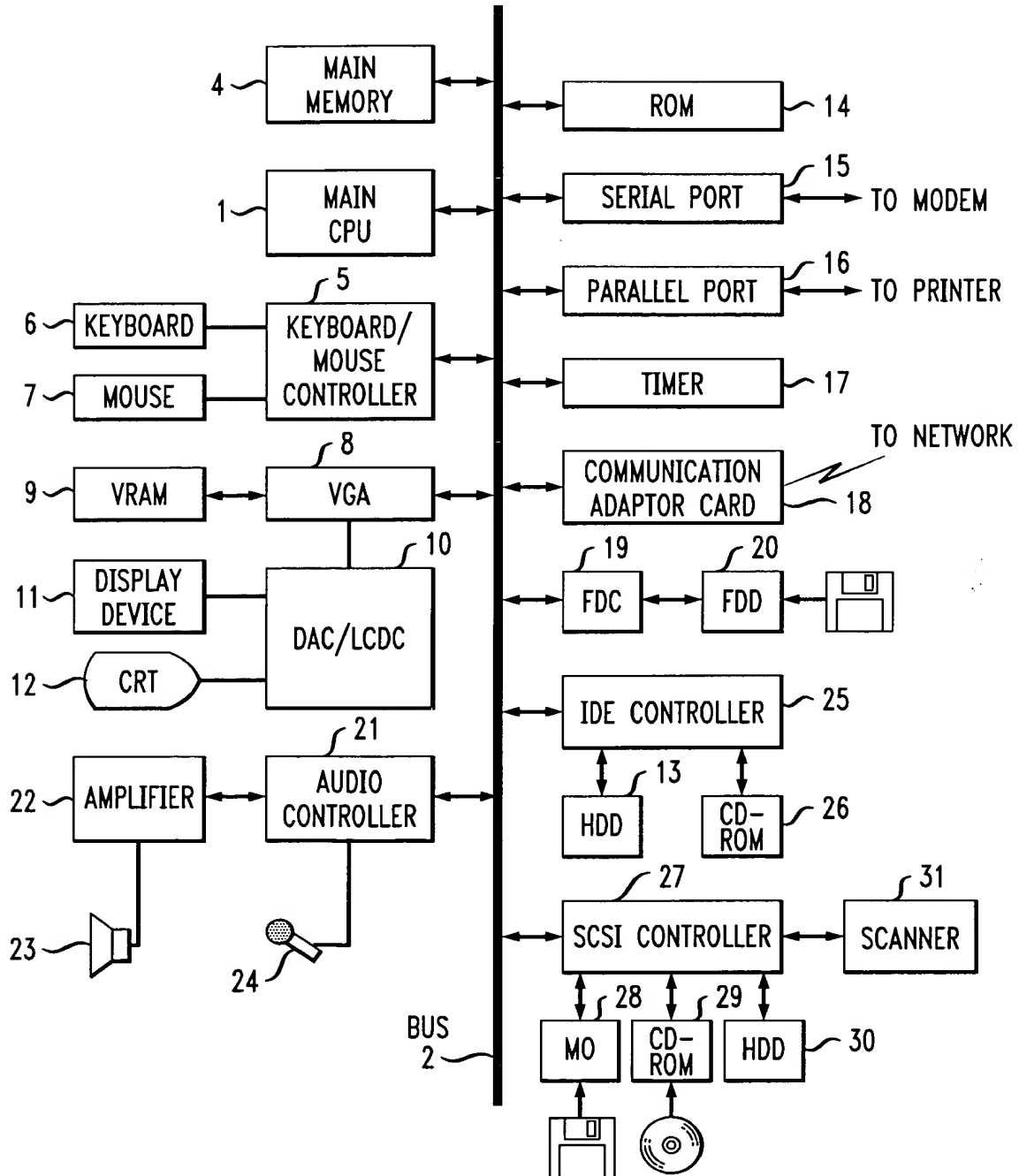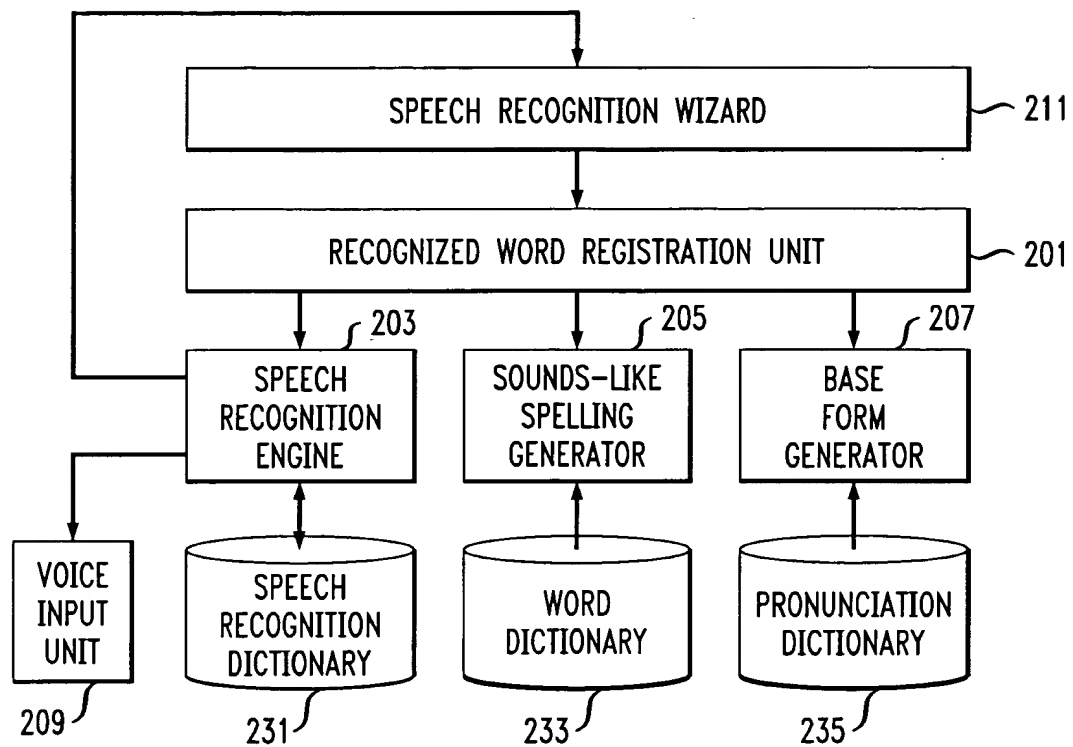only for a necessary word

# FIG. 3

100

## FIG. 4

```
                 ┌──────────────────────────────────────┐
                 │      SPEECH RECOGNITION WIZARD        │── 211
                 └──────────────────────────────────────┘
                                    │
                 ┌──────────────────────────────────────┐
                 │   RECOGNIZED WORD REGISTRATION UNIT   │── 201
                 └──────────────────────────────────────┘
                      │              │              │
                    203            205            207
            ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
            │    SPEECH    │  │ SOUNDS-LIKE  │  │    BASE      │
            │ RECOGNITION  │  │  SPELLING    │  │    FORM      │
            │    ENGINE    │  │  GENERATOR   │  │  GENERATOR   │
            └──────────────┘  └──────────────┘  └──────────────┘
              │        │            │                  │
        ┌─────────┐ ┌─────────┐ ┌─────────┐       ┌─────────┐
        │  VOICE  │ │ SPEECH  │ │  WORD   │       │PRONUNCI-│
        │  INPUT  │ │RECOGNI- │ │DICTION- │       │ ATION   │
        │  UNIT   │ │  TION   │ │  ARY    │       │DICTION- │
        │         │ │DICTION- │ │         │       │  ARY    │
        │         │ │  ARY    │ │         │       │         │
        └─────────┘ └─────────┘ └─────────┘       └─────────┘
          209        231          233               235
```

## FIG. 5

300

| WORD INSCRIPTION | | |
|---|---|---|
| 田原 | | |
| SOUNDS-LIKE SPELLING | PRONUNCIATION INSCRIPTION | SOUNDS-LIKE SPELLING SCORE |
| たはら | tahara | 0.83 |
| たわら | tawara | 0.56 |
| たばら | tabara | 0.45 |
| たばる | tabaru | 0.20 |
| だはら | dahara | 0.02 |
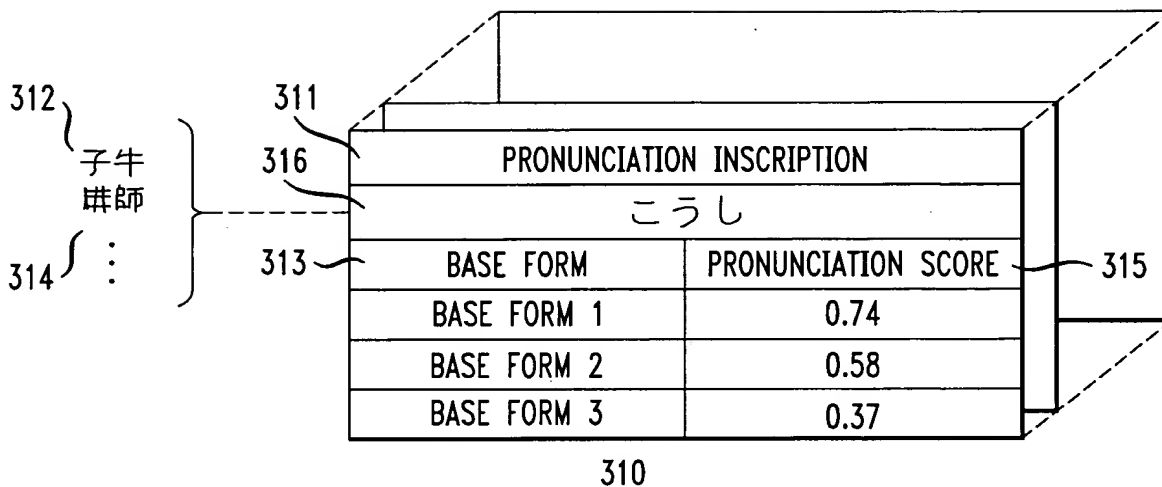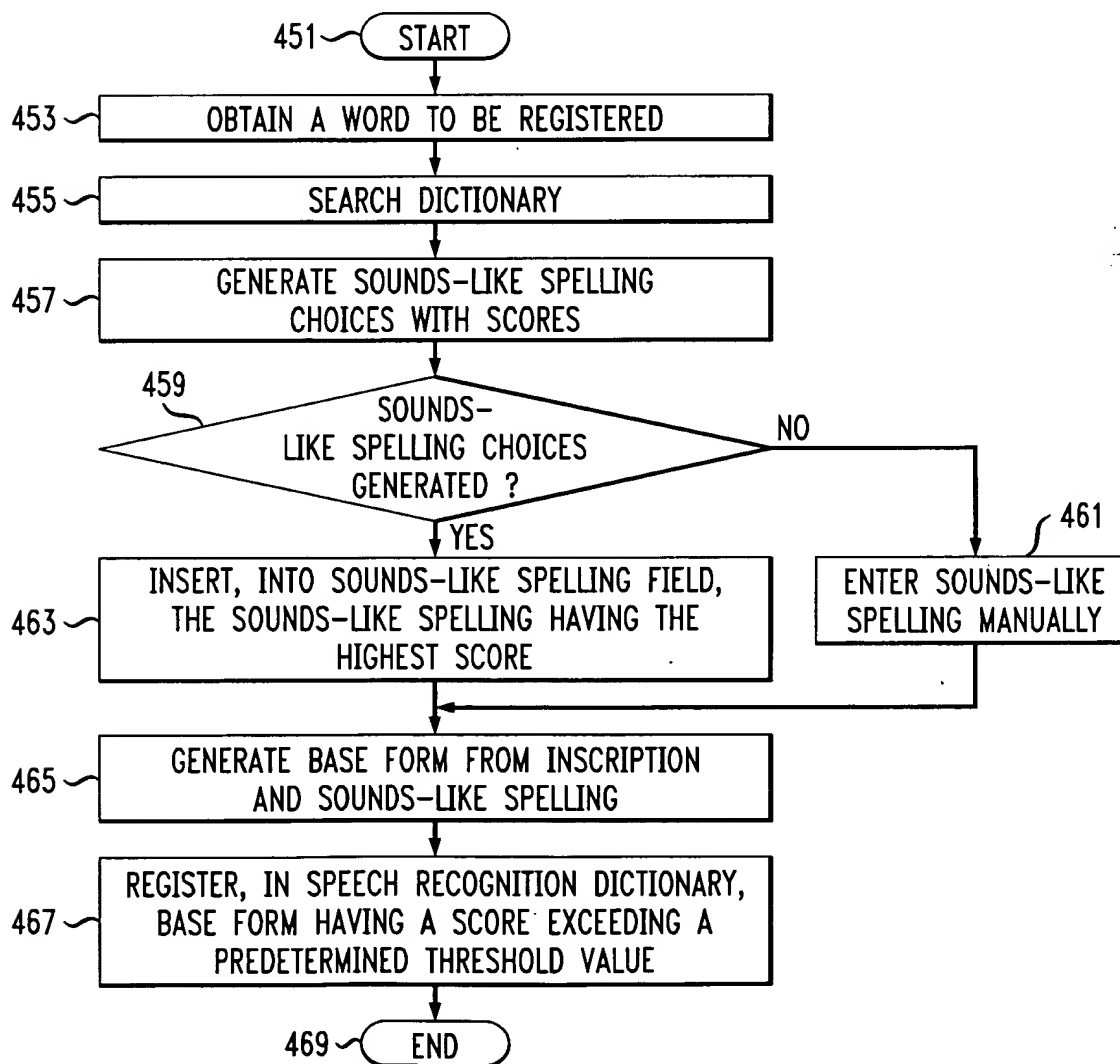
301 ~  303 ~  305  307

## FIG. 6

| PRONUNCIATION INSCRIPTION | |
|---|---|
| こうし | |
| BASE FORM | PRONUNCIATION SCORE |
| BASE FORM 1 | 0.74 |
| BASE FORM 2 | 0.58 |
| BASE FORM 3 | 0.37 |

子牛
牛師
：

310

## FIG. 7

451 — START

453 — OBTAIN A WORD TO BE REGISTERED

455 — SEARCH DICTIONARY

457 — GENERATE SOUNDS-LIKE SPELLING CHOICES WITH SCORES

459 — SOUNDS-LIKE SPELLING CHOICES GENERATED ?

NO — 461 — ENTER SOUNDS-LIKE SPELLING MANUALLY

YES

463 — INSERT, INTO SOUNDS-LIKE SPELLING FIELD, THE SOUNDS-LIKE SPELLING HAVING THE HIGHEST SCORE

465 — GENERATE BASE FORM FROM INSCRIPTION AND SOUNDS-LIKE SPELLING

467 — REGISTER, IN SPEECH RECOGNITION DICTIONARY, BASE FORM HAVING A SCORE EXCEEDING A PREDETERMINED THRESHOLD VALUE

469 — END

# FIG. 8

☐ Vocabulary expander word training 400

─ Select a word to be registered ...

Word to be registered (W)

| ViaVoice | Add (L) |

☑ ViaVoice 402

401

Select all (E)    Cancel all (C)

Register (R)    Cancel    Help (H)

403    404    405

─ Setting

Sounds-like spelling (Y)  (use hiragana, e.g.: こんにちわ) 407

| ひおほいず | ▶ |

Sound (S)  (use hiragana, e.g.: こんにちわ) 409

| ひおほひ | ▶ |

○ Validate only new registration (O)
◉ Both new and old registration exist (A)

☐ Display first a word for which the pronunciation is not known (B)

# FIG. 9

□ Vocabulary expander word training

Select a word to be registered...

Word to be registered (W)

おかあさんを

Add (L)

Select all (E)   Cancel all (C)

Register (R)   Cancel   Help (H)

Setting

Sounds-like spelling (Y)  (use hiragana, e.g.: こんにちわ)

おかーさんを  ▶

Sound (S)  (use hiragana, e.g.: こんにちわ)

おかーさんお  ▶

○ Validate only new registration (O)
◉ Both new and old registration exist (A)

□ Display first a word for which the pronunciation is not known (B)

400

401

403

404

405

407

409

*FIG. 10*

☐ Vocabulary expander word training                                          ☐ ☐

— Select a word to be registered ...

Word to be registered (W)

田原                    Add (L)

☐ 田原

Select all (E)    Cancel all (C)

Register (R)    Cancel    Help (H)

403          404      405

401
402

— Setting

Sounds-like spelling (Y)  (use hiragana, e.g.: こんにちは)

407

| たばamong |  ▶ |
| たばわ | |
| たわら | |
| たばら | |
| たばる | |

○ Validate only new registration (O)
⦿ Both new and old registration exist (A)

☐ Display first a word for which the pronunciation is not known (B)

400

## FIG. 11

START — 481

↓

DETECT RECOGNITION ERROR — 483

↓

CHECK ERROR — 485

↓

ERROR MATCH PREDETERMINED CONDITION ? — 487

NO →

YES ↓

ACTIVATE SPEECH RECOGNITION WIZARD — 489

↓
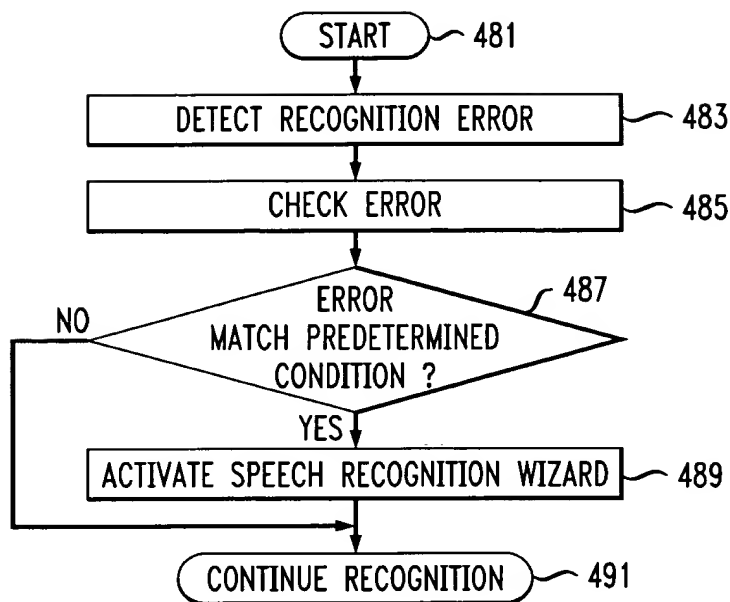
CONTINUE RECOGNITION — 491

## FIG. 12

600

□ Speech recognition wizard  □ □

Teach ViaVoice your pronunciation of a word

Click Record pronunciation, and begin recording the word as you would naturally say it.

601

ViaVoice

Spelling  ぴあぽいす  ▼

Pronunciation  ぴあぽいす  ▼

Recording ...

603

Generate command

Select another:

Register command word  ▼

Register word

< Return (B)  |  Next (N) >  |  Cancel

## FIG. 13

Point 1: Sounds-like spelling entry required

**Vocabulary expander word training** — 500

Select a word to be registered ...

Word to be registered (W) — 501

ViaVoice

503    505

Terminate operation (D)    Help (H)

Setting

Sounds-like spelling (Y) (use hiragana, e.g.: こんにちわ) — 507

Sound (S) (use hiragana, e.g.: こんにちわ) — 509

○ Validate only new registration (O)
◉ Both new and old registration exist (A)

→ FROM FIG. 14

---

**Vocabulary expander word training** — 500

Select a word to be registered ...

Word to be registered (W) — 501

ViaVoice

503    505

Terminate operation (D)    Help (H)

Setting

Sounds-like spelling (Y) (use hiragana, e.g.: こんにちわ) — 507

ひょうほうひ

Sound (S) (use hiragana, e.g.: こんにちわ) — 509

ひょうほうひ

○ Validate only new registration (O)
◉ Both new and old registration exist (A)

B TO FIG. 14

Point 2: Recording required

# FIG. 14

FROM FIG. 13

(B)

PASSED — CHECK ?

FAILED

POINT 3:
AUDIO INSPECTION
OF A WORD

☐ Add pronunciation

Word to be registered:

Word to be registered (W)

漢字

Sounds-like spelling (e.g.: こんにちは)

あいう ~511

Sound (e.g.:こんにちわ)

あいう ~513

OK

Cancel

Help

POINT 4:
MANY PROCEDURES
REQUIRED BEFORE
A WORD CAN
BE USED

CHECK
AGAIN ?

FAILED

TO
FIG. 13

(C)
Re-record

PASSED

SPEECH
RECOGNITION
DICTIONARY ~531